### **RAW SEQUENCE LISTING**

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) no errors detected.

Application Serial Number:	09/709,774A
Source:	1FW16
Date Processed by STIC:	10/22/04

# ENTERED



IFW16

### RAW SEQUENCE LISTING

DATE: 10/22/2004 TIME: 12:16:46

PATENT APPLICATION: US/09/709,774A

Input Set : A:\-62-4.app

Output Set: N:\CRF4\10222004\I709774A.raw

```
3 <110> APPLICANT: Sette, Alessandro
         Gaeta, Federico
 5
         Grey, Howard M.
 6
         Sidney, John
 7
        Alexander, Jeffery L.
        Epimmune Inc.
10 <120> TITLE OF INVENTION: Alteration of Immune Response Using Pan DR-Binding
         Peptides
13 <130> FILE REFERENCE: 018623-006240US
15 <140> CURRENT APPLICATION NUMBER: US 09/709,774A
16 <141> CURRENT FILING DATE: 2000-11-08
18 <150> PRIOR APPLICATION NUMBER: US 08/121,101
19 <151> PRIOR FILING DATE: 1993-09-14
21 <150> PRIOR APPLICATION NUMBER: US 08/305,871
22 <151> PRIOR FILING DATE: 1994-09-14
24 <150> PRIOR APPLICATION NUMBER: US 60/010,510
25 <151> PRIOR FILING DATE: 1996-01-24
27 <150> PRIOR APPLICATION NUMBER: US 08/788,822
28 <151> PRIOR FILING DATE: 1997-01-23
30 <160> NUMBER OF SEQ ID NOS: 22
32 <170> SOFTWARE: PatentIn Ver. 2.1
34 <210> SEQ ID NO: 1
35 <211> LENGTH: 13
36 <212> TYPE: PRT
37 <213> ORGANISM: Artificial Sequence
39 <220> FEATURE:
40 <223> OTHER INFORMATION: Description of Artificial Sequence: HA 307-319
42 <400> SEQUENCE: 1
43 Pro Lys Tyr Val Lys Gln Asn Thr Leu Lys Leu Ala Thr
44
   1
                     5
47 <210> SEQ ID NO: 2
48 <211> LENGTH: 24
49 <212> TYPE: PRT
50 <213> ORGANISM: Artificial Sequence
52 <220> FEATURE:
53 <223> OTHER INFORMATION: Description of Artificial Sequence: MBP 78-101
55 <400> SEQUENCE: 2
56 Gly Arg Thr Gln Asp Glu Asn Pro Val Trp His Phe Phe Lys Asn Ile
                     5
                                        10
59 Val Thr Pro Arg Thr Pro Pro
60
63 <210> SEQ ID NO: 3
64 <211> LENGTH: 12
```

DATE: 10/22/2004

### PATENT APPLICATION: US/09/709,774A TIME: 12:16:46 Input Set : A:\-62-4.app Output Set: N:\CRF4\10222004\I709774A.raw 65 <212> TYPE: PRT 66 <213> ORGANISM: Artificial Sequence 68 <220> FEATURE: 69 <223> OTHER INFORMATION: Description of Artificial Sequence: MT 65 kd 3-13 71 <400> SEQUENCE: 3 72 Tyr Lys Thr Ile Ala Phe Asp Glu Glu Ala Arg Arg 76 <210> SEQ ID NO: 4 77 <211> LENGTH: 14 78 <212> TYPE: PRT 79 <213> ORGANISM: Artificial Sequence 81 <220> FEATURE: 82 <223> OTHER INFORMATION: Description of Artificial Sequence:717.01 83 combinatorial 85 <400> SEQUENCE: 4 86 Tyr Ala Arg Phe Gln Ser Gln Thr Thr Leu Lys Gln Lys Thr 90 <210> SEO ID NO: 5 91 <211> LENGTH: 14 92 <212> TYPE: PRT 93 <213> ORGANISM: Artificial Sequence 95 <220> FEATURE: 96 <223> OTHER INFORMATION: Description of Artificial Sequence: Tet Tox 830-843 98 <400> SEQUENCE: 5 99 Gln Tyr Ile Lys Ala Asn Ser Lys Phe Ile Gly Ile Thr Glu 100 1 103 <210> SEQ ID NO: 6 104 <211> LENGTH: 13 105 <212> TYPE: PRT 106 <213> ORGANISM: Artificial Sequence 108 <220> FEATURE: 109 <223> OTHER INFORMATION: Description of Artificial Sequence: Tet Tox 110 1272-1284 112 <400> SEQUENCE: 6 113 Asn Gly Gln Ile Gly Asn Asp Pro Asn Arg Asp Ile Leu 114 117 <210> SEQ ID NO: 7 118 <211> LENGTH: 17 119 <212> TYPE: PRT 120 <213> ORGANISM: Artificial Sequence 122 <220> FEATURE: 123 <223> OTHER INFORMATION: Description of Artificial Sequence: RQIV 125 <400> SEQUENCE: 7

126 Tyr Ala His Ala His Ala His Ala His Ala His Ala His Ala

RAW SEQUENCE LISTING

132 <210> SEQ ID NO: 8 133 <211> LENGTH: 14 134 <212> TYPE: PRT

127 1 129 Ala

## RAW SEQUENCE LISTING DATE: 10/22/2004 PATENT APPLICATION: US/09/709,774A TIME: 12:16:46

Input Set : A:\-62-4.app

Output Set: N:\CRF4\10222004\1709774A.raw

```
135 <213> ORGANISM: Artificial Sequence
 137 <220> FEATURE:
 138 <223> OTHER INFORMATION: Description of Artificial Sequence:Ova 323-336
 140 <400> SEQUENCE: 8
 141 Ile Ser Gln Ala Val His Ala Ala His Ala Glu Ile Asn Glu
 142
                       5
 145 <210> SEQ ID NO: 9
 146 <211> LENGTH: 16
 147 <212> TYPE: PRT
 148 <213> ORGANISM: Artificial Sequence
 150 <220> FEATURE:
 151 <223> OTHER INFORMATION: Description of Artificial Sequence:lambda rep
 152
           12-26
 154 <400> SEQUENCE: 9
155 Tyr Leu Glu Asp Ala Arg Arg Leu Lys Ala Ile Tyr Glu Lys Lys
 156
     1
                                          10
 159 <210> SEQ ID NO: 10
160 <211> LENGTH: 17
161 <212> TYPE: PRT
162 <213> ORGANISM: Artificial Sequence
164 <220> FEATURE:
165 <223> OTHER INFORMATION: Description of Artificial Sequence: HEL 46-61
167 <400> SEQUENCE: 10
168 Tyr Asn Thr Asp Gly Ser Thr Asp Tyr Gly Ile Leu Gln Ile Asn Ser
169
171 Arg
174 <210> SEQ ID NO: 11
175 <211> LENGTH: 20
176 <212> TYPE: PRT
177 <213> ORGANISM: Artificial Sequence
179 <220> FEATURE:
180 <223> OTHER INFORMATION: Description of Artificial Sequence: HBVnc 50-69
182 <400> SEQUENCE: 11
183 Pro His His Thr Ala Leu Arg Gln Ala Ile Leu Cys Trp Gly Glu Leu
184
      1
                                          10
186 Met Thr Leu Ala
187
190 <210> SEQ ID NO: 12
191 <211> LENGTH: 21
192 <212> TYPE: PRT
193 <213> ORGANISM: Artificial Sequence
195 <220> FEATURE:
196 <223> OTHER INFORMATION: Description of Artificial Sequence: CS 378-398
198 <400> SEQUENCE: 12
199 Asp Ile Phe Lys Lys Ile Ala Lys Met Glu Lys Ala Ser Ser Val Phe
200
                                         10
                                                              15
202 Asn Val Val Asn Arg
203
206 <210> SEQ ID NO: 13
```

DATE: 10/22/2004

### PATENT APPLICATION: US/09/709,774A TIME: 12:16:46 Input Set : A:\-62-4.app Output Set: N:\CRF4\10222004\I709774A.raw 207 <211> LENGTH: 16 208 <212> TYPE: PRT 209 <213> ORGANISM: Artificial Sequence 211 <220> FEATURE: 212 <223> OTHER INFORMATION: Description of Artificial Sequence:MT (Y)17-31 214 <400> SEQUENCE: 13 215 Tyr Ser Gly Pro Leu Lys Ala Glu Ile Ala Gln Arg Leu Glu Asp Val 216 5 219 <210> SEQ ID NO: 14 220 <211> LENGTH: 13 221 <212> TYPE: PRT 222 <213> ORGANISM: Artificial Sequence 224 <220> FEATURE: 225 <223> OTHER INFORMATION: Description of Artificial Sequence: HBVc 128-140 227 <400> SEQUENCE: 14 228 Thr Pro Pro Ala Tyr Arg Pro Pro Asn Ala Pro Ile Leu 229 1 5 232 <210> SEQ ID NO: 15 233 <211> LENGTH: 13 234 <212> TYPE: PRT 235 <213> ORGANISM: Artificial Sequence 237 <220> FEATURE: 238 <223> OTHER INFORMATION: Description of Artificial Sequence: PLP 139-151 240 <400> SEQUENCE: 15 241 His Ser Leu Gly Lys Trp Leu Gly His Pro Asp Lys Phe 1 5 245 <210> SEQ ID NO: 16 246 <211> LENGTH: 4 247 <212> TYPE: PRT 248 <213> ORGANISM: Artificial Sequence 250 <220> FEATURE: 251 <223> OTHER INFORMATION: Description of Artificial Sequence:R-4 in pan DR binding peptide formula 254 <400> SEQUENCE: 16 255 Trp Thr Leu Lys 256 259 <210> SEQ ID NO: 17 260 <211> LENGTH: 13 261 <212> TYPE: PRT 262 <213> ORGANISM: Artificial Sequence 264 <220> FEATURE: 265 <223> OTHER INFORMATION: Description of Artificial Sequence: Pan DR binding 266 peptide 268 <220> FEATURE: 269 <221> NAME/KEY: MOD RES 270 <222> LOCATION: (3) 271 <223> OTHER INFORMATION: Xaa = cyclohexylalanine 273 <400> SEQUENCE: 17 W--> 274 Ala Ala Xaa Ala Ala Ala Lys Thr Ala Ala Ala Ala Ala

RAW SEQUENCE LISTING

DATE: 10/22/2004

TIME: 12:16:46

### Input Set : A:\-62-4.app Output Set: N:\CRF4\10222004\I709774A.raw 275 1 10 278 <210> SEQ ID NO: 18 279 <211> LENGTH: 13 280 <212> TYPE: PRT 281 <213> ORGANISM: Artificial Sequence 283 <220> FEATURE: 284 <223> OTHER INFORMATION: Description of Artificial Sequence: Pan DR binding 285 peptide 287 <220> FEATURE: 288 <221> NAME/KEY: MOD RES 289 <222> LOCATION: (3) 290 <223> OTHER INFORMATION: Xaa = cyclohexylalanine 292 <400> SEQUENCE: 18 W--> 293 Ala Ala Xaa Ala Ala Ala Ala Thr Leu Lys Ala Ala Ala 294 1 5 297 <210> SEQ ID NO: 19 298 <211> LENGTH: 13 299 <212> TYPE: PRT 300 <213> ORGANISM: Artificial Sequence 302 <220> FEATURE: 303 <223> OTHER INFORMATION: Description of Artificial Sequence:Pan DR binding 304 peptide 306 <220> FEATURE: 307 <221> NAME/KEY: MOD RES 308 <222> LOCATION: (3) 309 <223> OTHER INFORMATION: Xaa = cyclohexylalanine 311 <400> SEQUENCE: 19 W--> 312 Ala Ala Xaa Val Ala Ala Ala Thr Leu Lys Ala Ala Ala 313 1 5 316 <210> SEQ ID NO: 20 317 <211> LENGTH: 13 318 <212> TYPE: PRT 319 <213> ORGANISM: Artificial Sequence 321 <220> FEATURE: 322 <223> OTHER INFORMATION: Description of Artificial Sequence: Pan DR binding peptide 325 <220> FEATURE: 326 <221> NAME/KEY: MOD\_RES 327 <222> LOCATION: (3) 328 <223> OTHER INFORMATION: Xaa = cyclohexylalanine 330 <400> SEQUENCE: 20 W--> 331 Ala Ala Xaa Ile Ala Ala Ala Thr Leu Lys Ala Ala Ala 332 1 5 335 <210> SEQ ID NO: 21 336 <211> LENGTH: 13 337 <212> TYPE: PRT 338 <213> ORGANISM: Artificial Sequence 340 <220> FEATURE: 341 <223> OTHER INFORMATION: Description of Artificial Sequence: Pan DR binding

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/709,774A

RAW SEQUENCE LISTING ERROR SUMMARY
PATENT APPLICATION: US/09/709,774A

DATE: 10/22/2004 TIME: 12:16:47

Input Set : A:\-62-4.app

Output Set: N:\CRF4\10222004\I709774A.raw

### Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:17; Xaa Pos. 3/ Seq#:18; Xaa Pos. 3/ Seq#:19; Xaa Pos. 3/ Seq#:20; Xaa Pos. 3/ Seq#:21; Xaa Pos. 3/

### VERIFICATION SUMMARY

DATE: 10/22/2004 PATENT APPLICATION: US/09/709,774A TIME: 12:16:47

Input Set : A:\-62-4.app

Output Set: N:\CRF4\10222004\I709774A.raw

L:274 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:17 after pos.:0 L:293 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:18 after pos.:0 L:312 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:19 after pos.:0 L:331 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:20 after pos.:0 L:350 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:21 after pos.:0